

# King County Auditor's Office


Kymber Waltnunson, King County Auditor



King County

DATE: December 3, 2014

TO: Metropolitan King County Councilmembers

FROM: Kymber Waltnunson, King County Auditor 

SUBJECT: Follow-up on 2012 Performance Audit of King County's Investment in Information Technology

This memorandum provides the results of a second follow-up review of our 2012 Performance Audit of the county's information technology (IT) investment. Overall, the Department of Information Technology (KCIT) and the Office of Performance, Strategy & Budget (PSB) have made further progress in addressing the eight remaining recommendations since our 2013 review.

Four of the eight remaining recommendations have been implemented ("done") as a result of KCIT and PSB's continued refinement of the IT investment process. Three recommendations remain in progress. We are closing the recommendation concerning benchmarking total IT costs to peers, because benchmarking can be better carried out by comparing costs on individual technology initiatives rather than total costs. Finally, we are adding two new recommendations aimed at enhancing the visibility of the IT investment process and improving the information that can be used for investment decision-making.

Of the eight audit recommendations remaining from the 2012 audit and the 2013 follow-up:

DONE	4	Recommendations have been fully implemented Auditor will no longer monitor
PROGRESS	3	Recommendations are in progress or partially implemented Auditor will continue to monitor
OPEN	0	Recommendation remain unresolved Auditor will continue to monitor
CLOSED	1	Recommendation has been resolved using alternate approach Auditor will no longer monitor

Please see below for details on the implementation status of these recommendations. Our two new recommendations follow the table.

### Implementation Status as of November 2014

#	Quick Status	Recommendation	Status Detail
1	PROGRESS	<p>The Office of Performance, Strategy and Budget (PSB), in consultation with King County Information Technology (KCIT), should further mature the strategic investment framework for formal approval by stakeholders, including the King County Council. PSB and KCIT should then clearly communicate and apply the framework. The strategic investment framework should include:</p> <ul style="list-style-type: none"> <li>a) Roles and responsibilities for guiding resource allocation and ensuring intended results and modified business processes.</li> <li>b) Definition and communication of investment types, categories, criteria and relative weightings to the criteria to document value decisions among projects.</li> <li>c) Clear requirements for stage completion and other reviews.</li> <li>d) Definition of a balanced set of project and portfolio performance objectives, metrics, targets, and benchmarks.</li> <li>e) Alignment with the countywide strategic plan and its goals for delivering value.</li> </ul>	<p>PSB and KCIT have continued to mature the strategic investment framework for selecting and evaluating IT projects. Because this recommendation encompasses the entire strategic investment framework, it will remain in progress status as long as other recommendations, which are part of the framework, remain in progress.</p>
3	DONE	<p>KCIT, in its role on the Project Review Board (PRB), should:</p> <ul style="list-style-type: none"> <li>a) Develop and implement a methodology for ensuring independent oversight of KCIT-led projects; and</li> <li>b) Develop and implement a plan to increase stakeholder involvement and PRB transparency.</li> </ul>	<p>The PRB has continued to use external consultants for independent oversight of KCIT-led projects. In 2014, the consultants wrote quarterly quality assurance (QA) reports containing risk ratings of two ongoing high-cost IT projects: Unified Communications and Mainframe. The project teams submit written responses to the QA findings, recommendations for PRB's approval, and provide status updates on action plans. Relevant stakeholders have found the QA methodology useful for managing project risk.</p>

#	Quick Status	Recommendation	Status Detail
5	DONE	PSB should ensure that business cases are complete, clear, and contain the most accurate data available at the time of submittal. Business cases should clearly state the level of confidence in the information presented and include a timeframe estimate when more complete information will be available as the project matures. In addition, PSB should ensure rigorous completion of the five elements of business cases noted above including ensuring that agencies fully state and explain the assumptions used in the business cases.	PSB has created a new business case template to consolidate all information about an IT project in a single document. The template covers the five key elements of business cases and contains detailed instructions. PSB and KCIT jointly review and decide on submitted business cases and ensure any conditions are met before they move forward.
8	DONE	PSB should develop definitions to distinguish between the various types of savings from IT projects and consistently use these definitions in reports to the County Council and other decision-makers. PSB should provide instructions and examples to illustrate the differences between these savings definitions, which agencies can use when completing the cost/benefit analysis template.	PSB has significantly improved the benefits realization plan template. The template clearly defines the types of general benefits that can result from IT projects and provides instructions and examples to help departments complete the benefits analysis.
10	DONE	PSB should develop and ensure compliance with a robust set of benefits realization processes that includes effective planning, accurate estimates, and accountability for realizing, evaluating, and reporting IT project benefits. If necessary, this should include a mechanism to make budget adjustments, when applicable, based on expected savings.	PSB has clearly defined the benefits realization processes and determined roles and responsibilities of IT project managers, sponsors, and oversight body. IT project managers are required to submit a benefits realization plan for the budget and track changes to expected benefits. PRB and PSB provide oversight for benefits realization and implement real cost savings in the budget. In addition, PSB documents savings in the Annual Technology Report.

#	Quick Status	Recommendation	Status Detail
11	PROGRESS	PSB and KCIT should develop and implement a plan to ensure that lessons learned are captured and consulted at key points in the project lifecycle.	KCIT has developed a beta version of a searchable “Lessons Learned” database as part of its project management resources on SharePoint. The database currently contains test data based on one past project. KCIT is working to refine the database features and expects to finalize it by the end of 2014. KCIT plans to develop guidance and requirements to ensure lessons learned are captured and consulted throughout a project’s lifecycle.
12	PROGRESS	KCIT and PSB, working with all county offices and agencies including those of separately elected officials, should annually collect and report information on the total cost of IT broken out by operational, project, and debt service costs.	KCIT and PSB have successfully collected the total cost of countywide IT broken out by operational, project, and debt service costs for all county offices and agencies including those of separately elected officials. PSB is in the process of validating the reported information and will issue a report later in 2014. We encourage KCIT and PSB to continue to collect and report annually information on the total cost of IT, so that the County can develop internal benchmarks against which to evaluate cost-effectiveness.
13	CLOSED	KCIT should use the newly developed countywide cost of IT to benchmark IT spending to relevant local government peers. This information should be presented annually to the County Council.	The recommendation is no longer applicable. We will not monitor this recommendation going forward.

## **New Recommendations**

**The IT investment process still lacks visibility to stakeholders and county policy-makers.** Our 2012 audit recommended that PSB utilize a set of consistent and transparent criteria and a scoring system to evaluate potential projects at conceptual review, and that the criteria and scoring system should be linked to the strategic investment framework. Additionally, the audit recommended that PSB employ a system to score, rank, and prioritize projects within a funding category for inclusion in the budget. While we understand that PSB currently considers a wide variety of criteria in evaluating projects and recommending projects for funding, we found that the kind of visible evaluation and prioritization process that we previously identified as a best practice is not currently in place. Given the limited resources at the county's disposal, decision-makers should have sufficient assurance that IT project investments cost-effectively accomplish the county's strategic priorities. Providing greater visibility into the project selection process could help to provide such assurance.

PSB has indicated that there is limited utility in using a single scoring system to compare IT projects that have different funding sources, but it would be useful to rank projects within funding categories. PSB has suggested that a ranking system could be applied to compare large IT projects in the same funding categories. We agree that this would be a practical approach to enhancing visibility of the IT investment process.

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<b>Recommendation 14</b>	The Office of Performance, Strategy & Budget should develop and apply a funding prioritization system that ranks projects within funding categories based on weighted criteria. The results of applying the system should be made available to stakeholders and county policy-makers during the budget process.
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**IT investment decision-making needs to better utilize cost benefit analysis of projects.** Since our last audit follow-up, PSB has updated the cost benefit analysis tool used for evaluating IT projects. However, we found that the tool has not been utilized effectively due to flawed model design, ineffective quality assurance, and misunderstanding by agencies of how the tool should be used. Examples of the problems we saw include incorrect calculations of net present values and internal rates of return, lack of and inconsistent use of inflation, and truncated analyses that do not reflect full life-cycle costs. These problems can distort the information decision-makers use to understand the costs of project alternatives and to rank projects for funding, resulting in suboptimal investments. While some of the technical problems with the tool can be easily fixed, more attention needs to be paid to ensure that the benefits of utilizing such a tool can be fully realized.

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- Recommendation 15**      The Office of Performance, Strategy & Budget (PSB) should improve the analysis of information technology (IT) projects by:
- a) Immediately fixing technical flaws in the cost benefit analysis tool used for evaluating IT projects.
  - b) Ensuring that users of the cost benefit analysis tool have sufficient instructions and training to use the tool correctly.
  - c) Developing an effective quality assurance process to ensure that outputs of the cost benefit analysis tool are accurate.
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Once the above three actions have been completed, PSB should begin building a more robust tool that would include sensitivity analysis of key assumptions and the ability to compare alternative IT solutions that have different useful lives.

Bob Thomas, Senior Principal Management Auditor, and Chelsea Lei, Management Auditor, conducted this review. Please contact Bob Thomas at 477-1042 if you have any questions about the issues discussed in this letter.

cc:      Dow Constantine, King County Executive  
         Fred Jarrett, Deputy County Executive  
         Rhonda Berry, Assistant Deputy County Executive  
         Dwight Dively, Director, Office of Performance, Strategy & Budget  
         Bill Kehoe, County Chief Information Officer, King County Information Technology  
         Carol Basile, Deputy Director, Department of Executive Services, Finance & Business  
                 Operations Division  
         Anne Noris, Clerk of the Council